92470

Access DB# _____

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: BERCH Examiner #: 5918 Date: 4/28/03
Art Unit: 1624 Phone Number 30 84718 Serial Number: 09/[illegible]5149
Mail Box and Bldg/Room Location: 4D15 4E12 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

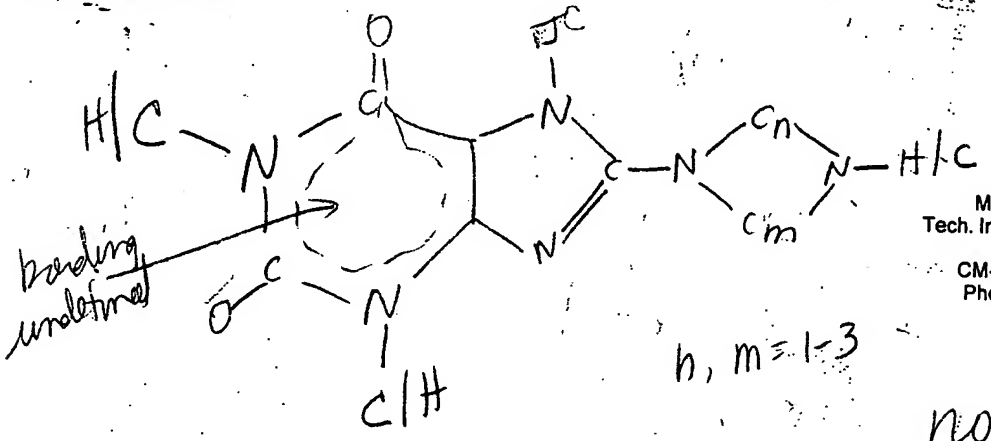
Title of Invention: _____

Inventors (please provide full names): _____

_____

Earliest Priority Filing Date: _____

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*



h, m = 1-3

J = C, lnt nat C_1-C_5 alkyl

NO PY 2002 or PY 2003

(Note - 1-H/C is in case R6 ≠ H is altered

Mary Jane Ruhl
Tech. Info. Specialist, STIC
TC-1600
CM-1, Room 6A-06
Phone: 605-1155

****

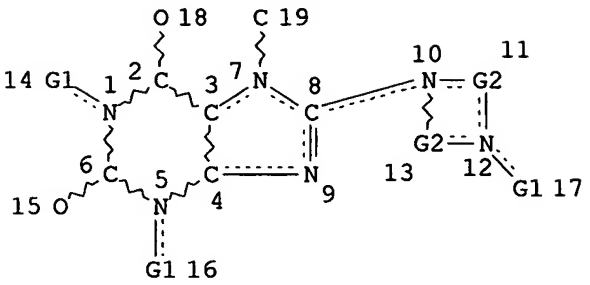
STAFF USE ONLY	Type of Search	Vendors and cost where applicable
Searcher: _____	NA Sequence (#)_____	STN _____
Searcher Phone #: _____	AA Sequence (#)_____	Dialog _____
Searcher Location: _____	Structure (#) _____	Questel/Orbit _____
Date Searcher Picked Up: 4/28/03	Bibliographic _____	Dr.Link _____
Date Completed: 5/1/03	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: 8	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: _____	Other _____	Other (specify) _____

PTO-1590 (8-01)

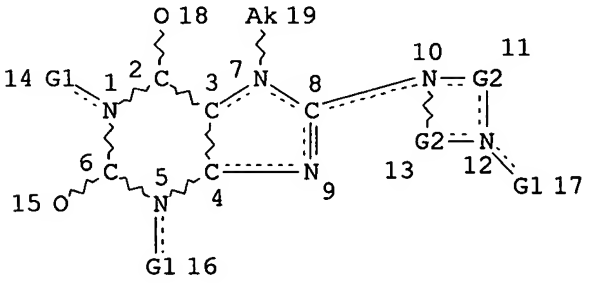
```
=> d his

     (FILE 'HOME' ENTERED AT 10:50:24 ON 01 MAY 2003)

     FILE 'REGISTRY' ENTERED AT 10:50:33 ON 01 MAY 2003
L1             STR L***
L2          17 S L1
L3             STR L1
L4             STR L***
L5           1 S L3 NOT L4
L6          10 S L3 NOT L4 FULL 10 compds*, only 2 appear in lit.
                                — see d ine stat for structures

     FILE 'HCAPLUS' ENTERED AT 12:43:33 ON 01 MAY 2003
L7           2 S L6 2 cits from CA Plus

     FILE 'CAOLD' ENTERED AT 12:46:33 ON 01 MAY 2003
L8           0 S L7 0 cits from CA Old
```

* List of 10 compds attached

```
=> d que stat l7
L3                STR
```




```
VAR G1=C/H
REP G2=(1-3) C
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  19

STEREO ATTRIBUTES: NONE
L4                STR
```



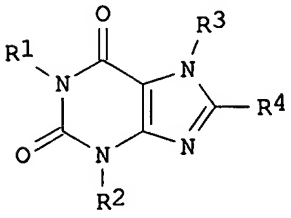

```
VAR G1=C/H
REP G2=(1-3) C
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
ECOUNT  IS M1-X5 C  AT  19

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  19

STEREO ATTRIBUTES: NONE
L6            10 SEA FILE=REGISTRY SSS FUL L3 NOT L4
L7             2 SEA FILE=HCAPLUS ABB=ON  L6
```

=> d ibib abs hitstr l7 1-2

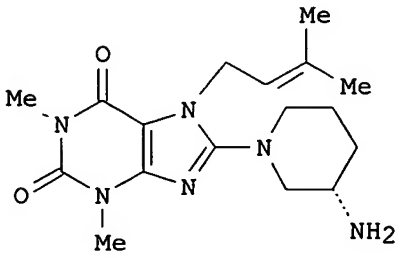
L7 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:676018 HCAPLUS
DOCUMENT NUMBER: 137:216824
TITLE: Preparation of xanthine derivatives as dipeptidylpeptidase-IV inhibitors
INVENTOR(S): Himmelsbach, Frank; Mark, Michael; Eckhardt, Matthias; Langkopf, Elke; Maier, Roland; Lotz, Ralf
PATENT ASSIGNEE(S): Boehringer Ingelheim Pharma K.-G., Germany
SOURCE: PCT Int. Appl., 373 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002068420	A1	20020906	WO 2002-EP1820	20020221
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10109021	A1	20020905	DE 2001-10109021	20010224
DE 10117803	A1	20021024	DE 2001-10117803	20010410
DE 10140345	A1	20030227	DE 2001-10140345	20010817

PRIORITY APPLN. INFO.: DE 2001-10109021 A 20010224
DE 2001-10117803 A 20010410
DE 2001-10140345 A 20010817
DE 2002-10203486 A 20020130
OTHER SOURCE(S): MARPAT 137:216824
GI



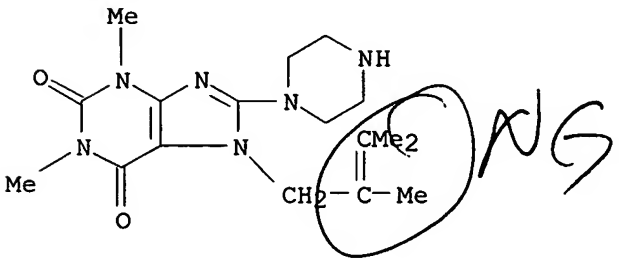
I



II

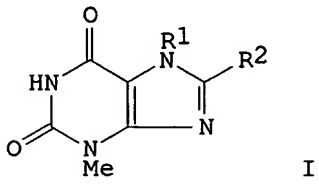
AB Xanthine derivs. of formula I [R1, R2 = H, alkyl, alkenyl, etc.; R3 = alkyl, arylalkyl, etc.; R4 = heterocyclyl, cycloalkyl, aminoalkyl, etc.] are prepd. which exhibit an inhibitory effect on the activity of the dipeptidylpeptidase-IV enzyme. Pharmaceutical compns. contg. I are described. Thus, II was prepd. and had an IC50 of 22 nM against dipeptidylpeptidase-IV.

IT **454706-71-9P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of xanthine derivs. as dipeptidylpeptidase-IV inhibitors)
RN 454706-71-9 HCAPLUS
CN 1H-Purine-2,6-dione, 7-(2,3-dimethyl-2-butenyl)-3,7-dihydro-1,3-dimethyl-8-(1-piperazinyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1987:95577 HCAPLUS
DOCUMENT NUMBER: 106:95577
TITLE: Synthesis and biological activity of 3-methyl, 7- or 8-alkyl-, 7,8-dialkyl, heterocyclic, and cyclohexylaminoxanthines
AUTHOR(S): Romanenko, N. I.; Fedulova, I. V.; Primenko, B. O.; Orestenko, L. P.
CORPORATE SOURCE: Zaporozh. Med. Inst., Zaporozhe, USSR
SOURCE: Farmatsevtichnii Zhurnal (Kiev) (1986), (5), 41-4
CODEN: FRZKAP; ISSN: 0367-3057
DOCUMENT TYPE: Journal
LANGUAGE: Ukrainian
OTHER SOURCE(S): CASREACT 106:95577
GI



I

AB Seventeen title compds. (I; R1 = heptyl, nonyl, or CH2CH:C(Cl)Me; R2 = NMe2, NEt2, piperidino, cyclohexylamino, NHCH2Ph, piperazino, morpholino, NHNH2, N(CH2CH2OH)2, etc.) were prepd. by reacting the K salt of 8-bromo-3-methylxanthine with appropriate alkyl halides followed by condensation with appropriate primary or secondary amines. Toxicity studies in mice showed I to be less toxic than aminazine. Most I exhibited diuretic activity in rats, and some exhibited analeptic activity as well. Many I exhibited antimicrobial activity in vitro against both bacteria and fungi. The most active diuretics contained morpholino,

piperidino, or N-benzyl groups at the 8-position.

IT **106939-21-3P**
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(prepn. and pharmacol. of, structure in relation to)

RN 106939-21-3 HCAPLUS

CN 1H-Purine-2,6-dione, 7-heptyl-3,7-dihydro-3-methyl-8-(1-piperazinyl)-(9CI) (CA INDEX NAME)